

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,983,360 B2

APPLICATION NO. : 09/943586

DATED : January 3, 2006

INVENTOR(S) : ~~Thomas A. Murray~~

Neal Andrew Crook, et al.

Page 1 of 6

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Replace informal drawing sheet 1 with the attached formal drawing sheet 1.

Replace informal drawing sheet 2 with the attached formal drawing sheet 2.

Replace informal drawing sheet 3 with the attached formal drawing sheet 3.

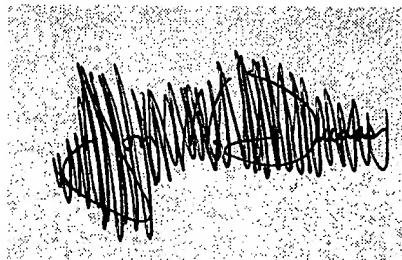
FIG. 4, decision box 418, change "none" to -- no data --.

Replace informal drawing sheet 4 with the attached formal drawing sheet 4.

This certificate supersedes certificate of correction
issued September 18, 2007.

~~Noted and Sealed~~

~~This certificate is dated September 18, 2007~~



~~Noted and Sealed~~

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NEW
TITLE
PAGE



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(12) **United States Patent**
Crook et al.

(10) Patent No.: **US 6,983,360 B2**
(45) Date of Patent: **Jan. 3, 2006**

(54) **PROGRAM LOADING MECHANISM,
THROUGH A SINGLE INPUT DATA PATH**

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James Peterson, Portland, OR (US)**

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(US)**

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 737 days.

(21) Appl. No.: **09/943,586**

(22) Filed: **Aug. 30, 2001**

(65) **Prior Publication Data**
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(51) Int. Cl.
G06F 9/445 (2006.01)
G06F 9/24 (2006.01)

(52) U.S. Cl. **712/229; 712/225; 712/227**

(58) Field of Classification Search **712/225,
712/227, 229; 717/177, 178; 709/221, 222;
710/10, 14; 380/249**

See application file for complete search history.

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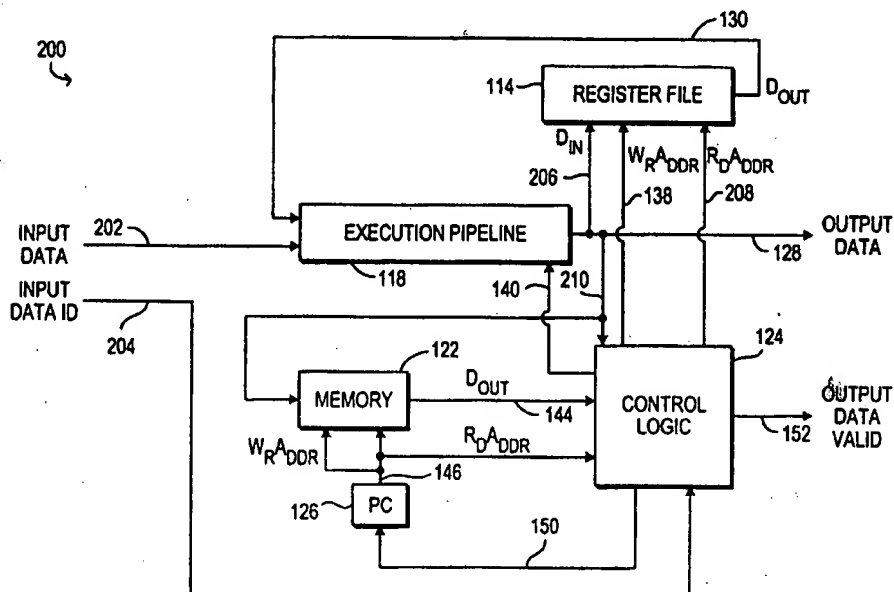
Primary Examiner—Daniel H. Pan

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Ropes & Gray LLP; Evelyn C. Mak

(57) **ABSTRACT**

Pieces of input data, which can be either setup data or program data with an associated identifier, are provided to a processing engine through a single input data path. After a system initially resets, the processing engine runs in setup mode. When an identifier for setup data is detected, input data is passed unchanged through an execution pipeline to control logic, which executes a setup program. The setup program loads a program counter, a memory, a register file counter, and a register file. When an identifier for program data is detected, the processing engine automatically switches to run mode and input data is processed in the execution pipeline. The processing engine automatically switches between run mode and setup mode depending on the identifier. Using a single input data path decreases hardware complexity and allows input data to be processed without external control logic.

34 Claims, 4 Drawing Sheets





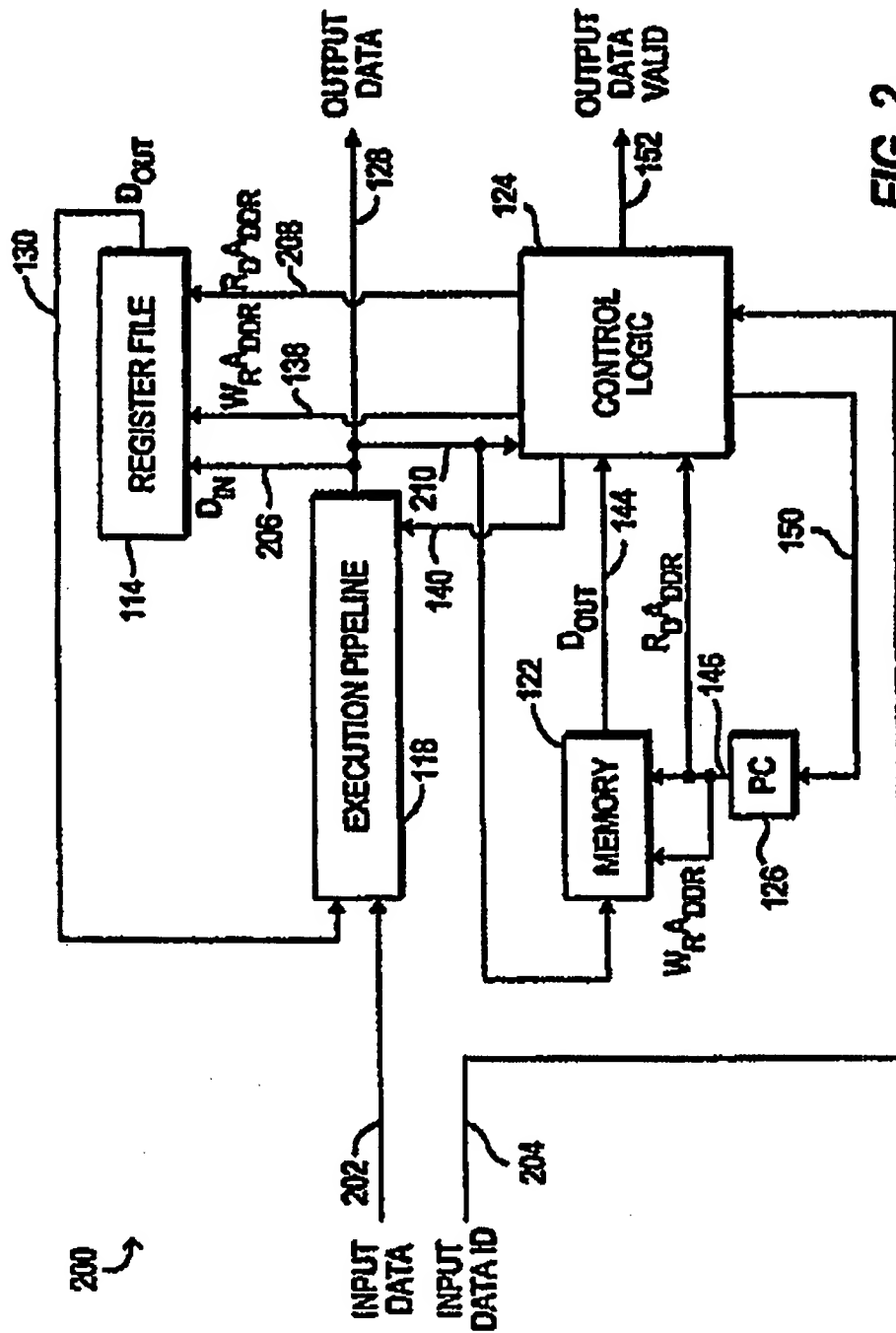


FIG. 2

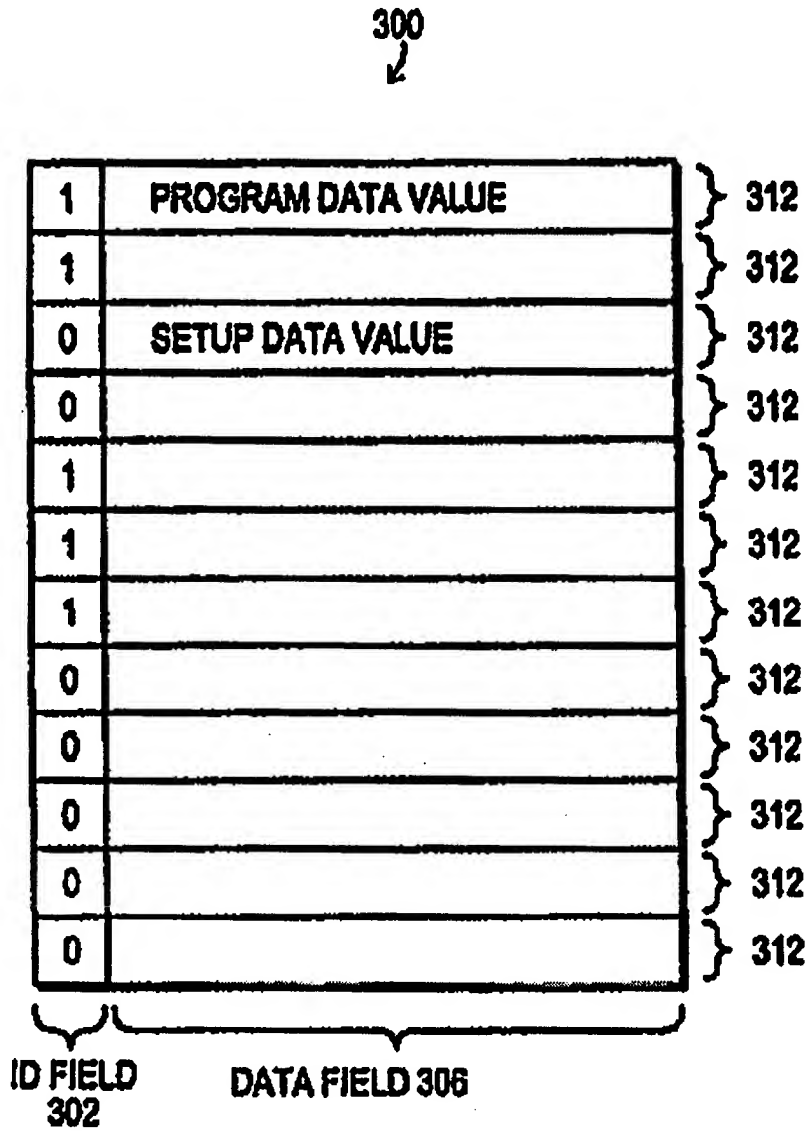


FIG. 3

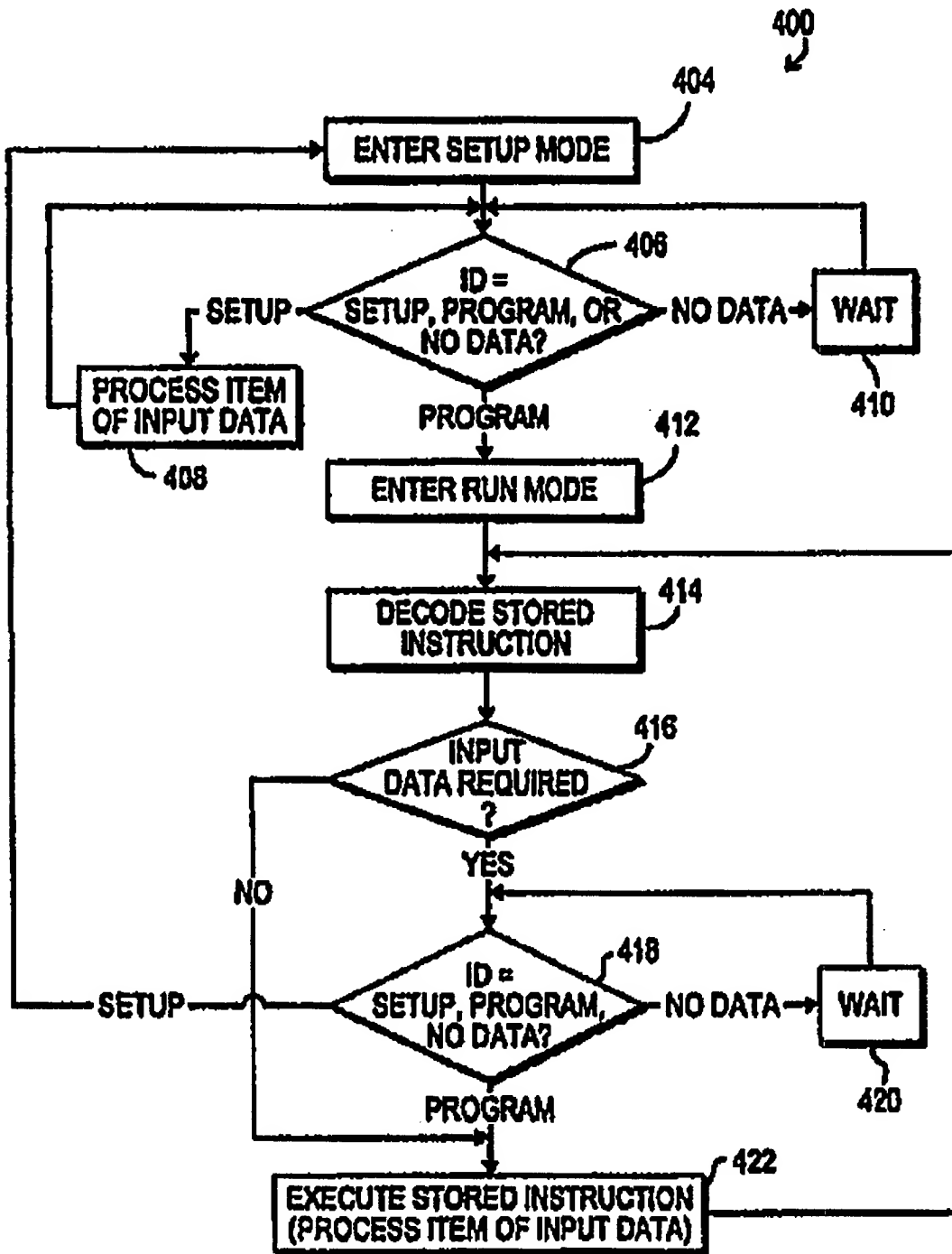


FIG. 4